# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/659,133 | 09/10/2003 | Per Hammarlund | Intel 2207/618602 | 4796 |

| | | | EXAMINER |
|---|---|---|---|
| 25693 | 7590 | 01/28/2005 | CHEN, TE Y |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/659,133 | HAMMARLUND ET AL. |
| | Examiner | Art Unit | |
| | Susan Y Chen | 2161 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>05 October 2004</u>.

2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-13 and 18-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,11-13 and 18-20* is/are rejected.

7)☐ Claim(s) *9 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## *Response to Amendment*

This office action is in response to the amendment filed on 10/05/2004.

The terminal disclaimer filed on 10/5/2004 to overcome the obviousness type double patenting rejection against U.S. Patent No. 6,662,173 has being acknowledged and recorded.

Claims 1-13 and 18-20 are pending for examination. Applicant cited that claim 10 has been amended in the page 4 of instant amendment, however, the citation of the claim stays the same, thus, applicant should change the remark in according to the claim. Claims 14-17 and 21-24 have been canceled.

## *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 11-13 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebrahim et al. (U.S. Patent No. 5,644,753).

As to claim 1, Ebrahim et al. (hereinafter referred as Ebrahim) discloses a system for sharing a resource between at least two components [e.g., col. 1, lines 8-16; Fig(s). 1 and 12 and associated texts], comprising:

a) a resource having a plurality of elements [e.g., the units 108, 109, Fig. 1];

b) an access controller coupled to the resource [e.g., the unit 110, Fig. 1]; and

c) at least first and second components coupled to the access controller and adapted to access the elements of the resource [e.g., the units: 104-1 to104-n, 120-1 to 120-n, 110, 112, 134-1 to 134-n, etc, Fig. 1] wherein the access controller is adapted to control which of the components are able to access which elements of the resource [e.g., col. 1, lines 47-60; col. 4, lines 1-39].

As to claim 2, Ebrahim discloses the claimed features, comprising:

a) a resource having a plurality of elements [e.g., the units 108, 109, Fig. 1];

b) an access controller coupled to the resource [e.g., the unit 110, Fig. 1]; and

c) at least first and second components coupled to the access controller and adapted to access the elements of the resource [e.g., the units: 104.1 – 104.n, 120-1 to 120-n, 110, 112, 134-1 to 134-n, etc, Fig. 1 and associated texts] wherein the access controller is adapted to control which of the components are able to access which elements of the resource [e.g., col. 1, lines 47-60; col. 4, lines 1-39].

d) an access controller adapted to stored a first mask value, wherein access to the elements of the resource is controlled based on the first mask value [e.g.,

e.g., the unit 194, Fig. 6; col. 22, lines 36-43; col. 26, lines 3-27; the unit 444,

Fig. 12 and associated texts].

As to claim 3, except the features recited in claim 2, Ebranhim further discloses

that the first mask value represents which of the elements of the resource are available

for access for a selected component [e.g., col. 32, lines 41-46].

As to claim 4, Ebranhim discloses the features as claimed by applicant,

comprising:

a) a memory resource having a plurality of addressable blocks [e.g., the units

108, 109, Fig. 1];

b) first and second components adapted to access the memory resource [e.g.,

the units: 104-1 to104-n, 120-1 to 120-n, 110, 112, 132, 134-1 to 134-n, etc,

Fig(s). 1 and 12 and associated texts]; and

c) a register adapted to store a first mask value, wherein access to addressable

blocks of the memory resource is controlled based on the first mask value [e.g.,

the unit 158, Fig. 4, the unit 180, Fig. 5 and 190, Fig. 6 and associated texts; col.

14, lines 16-40; col. 22, lines 5 – col. 23, line 40].

As to claim 5, except the features cited in claim 4, Ebranhim further discloses

that the memory resource is a cache memory [e.g., Abstract, lines 1-5].

As to claim 6, except the features cited in claim 4, Ebranhim further discloses

that a processor couple to the cache memory, wherein the first component includes

execution of instructions by the processor from a first thread and the second component

includes execution of instructions by the processor from a second thread [e.g., the unit

102, Fig. 1; col. 6, lines 14-22; col. 17, lines 61 – col. 18, line 26; Fig(s). 5-7 and

associated texts].

As to claim 7, except the features cited in claim 6, Ebranhim further discloses

that the first mask value represent which of the addressable blocks of the cache

memory are available for eviction [e, g., col. 1, lines 53-60; col. 20, lines 59 – col. 21,

line 11].

As to claim 8, except the features cited in claim 7, Ebranhim further discloses

that the first mask value is provided for each of the components to indicate which of the

addressable blocks of the cache memory are available for eviction for at least two of the

components [e.g., col. 1, lines 53-60; col. 20, lines 59 – col. 21, line 11; col. 31, lines 5 –

42].

As to claims 11-13 and 18-20, these claims recites the same subject matter as

claims 1-8 in form of method and computer program product, hence are rejected for the

same reason.

### *Allowable Subject Matter*

Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Response to Arguments*

Applicant's arguments with respect to claims 1-13 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

To expedite the process of re-examination, the examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set forth by the Examiner prior to the office action, that applicant should provide and link to the most specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Miller et al. (U.S.Patent No. 6,212,607) which discloses a multi-ported memory architecture using single-ported RAM.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Susan Y Chen whose telephone number is 571-272-

4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

<div style="text-align:right">

Susan Y Chen
Examiner
Art Unit 2161

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January 25, 2005

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**UYEN LE**
**PRIMARY EXAMINER**

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